CLAIMS

We claim:

1	1. A method of extracting electrical characteristics from an integrated		
2	circuit layout, said method comprising:		
3	dividing said integrated circuit layout into at least one extraction sub problem;		
4	identifying a set of physical parameters that define said extraction sub problem		
5	from said integrated circuit layout;		
6	supplying said set of physical parameters to a machine-learning model trained		
7	with Bayesian inference implemented with a Monte Carlo method; and		
8	calculating at least one electrical characteristic for said extraction sub problem by		
9	analyzing said set of physical parameters with said machine-learning model		
10	trained with Bayesian inference implemented with a Monte Carlo method.		
1	2. The method as claimed in claim 1 wherein said electrical		
2	characteristic comprises capacitance.		

- 1 3. The method as claimed in claim 1 wherein said electrical characteristic comprises resistance.
- 1 4. The method as claimed in claim 1 wherein said extraction sub 2 problem comprises a net.

models.

1	5. The method as claimed in claim 1 wherein said extraction sub			
2	problem comprises a section of interconnect wiring.			
1	6. The method as claimed in claim 1 wherein one of said set of			
2	physical parameters comprises a distance between a pair of interconnect lines.			
	7. The method as claimed in claim 1 wherein one of said set of			
1				
2	physical parameters comprises a wire width.			
1	8. The method as claimed in claim 1 wherein one of said set of			
2	physical parameters comprises a wire length.			
1	9. The method as claimed in claim 1, said method further comprising	, •		
2	selecting said machine-learning model from a plurality of machine-learning			
4	beleeting bard machine rearming mount and a property			

1	10. The method as claimed in claim 1 wherein calculating at least one
2	electrical characteristic for said extraction sub problem comprises:
3	determining a capacitance per unit length for a subsection of interconnect wiring;
4	and
5	multiplying said capacitance per unit length by a length of said subsection of
6	interconnect wiring.

comprising an arranged set of computer instructions for:

dividing an integrated circuit layout into at least one extraction sub problem;
identifying a set of physical parameters that define said extraction sub problem
from said integrated circuit layout;
supplying said set of physical parameters to a machine-learning model trained
with Bayesian inference implemented with a Monte Carlo method; and
calculating at least one electrical characteristic for said extraction sub problem by
analyzing said set of physical parameters with said machine-learning model
trained with Bayesian inference implemented with a Monte Carlo method.

12. The computer readable medium as claimed in claim 11 wherein said electrical characteristic comprises capacitance.

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1	13.	The computer readable medium as claimed in claim 11 wherein		
2	said electrical characteristic comprises resistance.			
1	14.	The computer readable medium as claimed in claim 11 wherein		
2	said extraction sub problem comprises a net.			
1	15.	The computer readable medium as claimed in claim 11 wherein		
		•		
2	said extraction sub pr	oblem comprises a section of interconnect wiring.		
1	16.	The computer readable medium as claimed in claim 11 wherein		
2	one of said set of physical parameters comprises a distance between a pair of interconnect			
3	lines.			
1	17.	The computer readable medium as claimed in claim 11 wherein		
2	one of said set of phy	vsical parameters comprises a wire width.		

1 18. The method as claimed in claim 1 wherein one of said set of 2 physical parameters comprises a wire length.

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1	19. The computer readable medium as claimed in claim 11 wherein		
2	said arranged set of computer instructions further perform:		
3	selecting said extraction sub problem model from a plurality of extraction sub		
4	problem models.		
1	20. The computer readable medium as claimed in claim 11 wherein a		
2	subset of computer instructions for calculating at least one electrical characteristic for		
3	said extraction sub problem perform the follow:		
4	determining a capacitance per unit length for a subsection of interconnect wiring;		
5	and		
6	multiplying said capacitance per unit length by a length of said subsection of		

interconnect wiring.

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